

CLAIMS

1. A process for forming a planiform piece intended for an interior fitting of a motor vehicle, the process comprising:

5 covering at least one layer of at least one face (2) along a portion (3) of a support material (1) with a cladding (4);

cutting along said portion (3) such that said cladding (4) projects from said support material (1) in said portion (3);

pre-positioning a cutting tool (5) between said cladding (4) and said support material (1) along said portion (3); and

10 cutting along said portion (3) with said cutting tool (5) when said support material (1) is covered with said cladding (4).

2. The process according to claim 1 wherein a mould (10) comprising a punch (11) and a die (12) which define an air gap (13), and
15 wherein the punch (11) and the die (12) are movable towards one another to enable the mould to be closed in a forming direction (14), and

wherein said support (1) and said cladding (4) are positioned between said die (12) and said punch (11), said support (1) and said cladding (4), placed facing one another in said forming direction (14), each being
20 constituted by a first zone (15a), located in air gap (13), and by a second zone (15b), extending beyond said air gap (13), and

wherein said cutting tool (5) is positioned in a vicinity of a limit between said first zone (15a) and at least one of said second zone (15b) of said support (1) and of said cladding (4).

25

3. The process according to claim 2, wherein said support material (1) and said cladding (4) are adhered to one another by closing said mould (10) in said forming direction (14), and wherein said support material (1) and said cladding (4) are held in position using said cutting tool against at least
30 one of the punch (11) and the die (12), in an area of their said second zone (15b) so as to control their movement in planes orthogonal to said forming direction (14), when the mould closes.

4. The process according to claim 3, wherein said support (1) is held in position against the punch (11) during the closing of the mould by applying a cutting portion (16) of said cutting tool (5) with a controlled pressure against said punch (11), to obtain a sliding contact of said support (1) with said punch (11), and wherein a pressure increment is applied to said cutting portion (16) of said cutting tool (5).

5. The process according to claim 2, wherein at least one of said punch (11) and said die (12) are moved towards one another when the mould closes and the amount of movement of said punch (11) and of said die (12) originating from the closing of the mould is applied directly or indirectly to said cutting tool (5).

6. The process according to claim 2, in which the cutting and the closing of the mould are co-ordinated by controlling the path of the cutting tool in relation to the relative path of the die (12) and of the punch (11) in order to perform these two operations simultaneously.

7. The process according to claim 2, in which said support (1) is wedged in an area of a limit between said first zone (15a) and said second zone (15b), against at least one of said die (12) and said punch (11), prior to cutting.

8. A device for forming a planiform piece for an interior fitting of a motor vehicle, the device comprising:

a covering means (19) for covering a layer of support material (1), on at least one face (2) and in a portion (3) of said support material (1) with a cladding (4), wherein said covering means (19) changes from a first configuration to a second configuration;

a cutting means (20) for cutting said support material (1) along said portion (3) such that said cladding (4) projects beyond said support material (1) in said portion (3), and

wherein said cutting means (20) is adaptable for being

positioned between said cladding (4) and said support material (1), along said portion (3), and cutting said support material (1) along said portion (3) when the covering means (19) changes from said first to said second configuration.

5 9. The device according to claim 8, wherein said covering means (19) for covering said support (1) include a mould (10) having a punch (11) and a die (12), wherein an air gap (13) is defined between said punch (11) and said die (12) such that said punch (11) and said die (12) are movable towards one another to permit the closing of the mould in a forming direction
10 (14).

10. The device according to claim 9, wherein said mould (10) further comprises:

a first positioning means (21) for positioning said support (1);

a second positioning means (22) for positioning said cladding
15 (4), wherein said first and second positioning means position said support (1) and said cladding (4) facing one another in said forming direction (14) and wherein said support material (1) and said cladding (4) have a first zone (15a) located in said air gap (13) and a second zone (15b) projecting from said air gap (13); and

20 a third positioning means (23) for positioning a cutting tool (5) between said first zone (15a) and said second zone (15b) of said support material (1) and said cladding (4).

11. The device according to claim 10, wherein said first
25 positioning means (21) and said second positioning means (22) is a cutting tool (5) configured to hold said support material (1) and cladding (4) in position against said punch (11) and said die (12), in said second zone (15b), so as to control movement in a plane orthogonal to said forming direction (14), when said mould closes.

30

12. The device according to claim 10, wherein said third positioning means (23) for positioning cutting tool (5) includes a support (24) articulated in relation to an intermediate member (25) for co-operating with at

14

least one of the punch (11) and the die (12).

13. The device according to claim 12, wherein:

5 said first positioning means (21) for positioning the support material (1) is a cutting tool (5) and is capable of coming to bear against said punch (11), and wherein said third positioning means (23) further includes a jack (29), acting on a cutting tool support (24) for applying a controlled pressure to a cutting portion (16) of said cutting tool (5) against said punch (11), to obtain a sliding contact of said support material (1); and

10 said mould (10) further include an applying means (30) for applying a pressure increment to said cutting portion (16) of said cutting tool (5).

14. The device according to claim 12, further comprising a pressing means (31) for applying to said support (24) of the cutting tool (5) and to said cutting tool (5) an amount of movement of said punch (11) and of said die (12) originating from the closing of the mould.

15 15. The device according to claim 14, wherein said pressing means (31) has a plurality of stops (32) secured to said die (12) and extending towards the punch (11), outside the air gap (13), so as to be able come to bear against at least one of the support (24) of said cutting tool (5) and the cutting tool (5) itself, when the mould closes.

25 16. The device according to claim 14, further comprising wedges (37) secured to at least one of the support (24) of the cutting tool (5) and at least one of the plurality of stops (32), so as to control the path of the cutting tool to complete the closing of the mould and the cutting operation simultaneously.

30

15

17. The device according to claim 14, further comprising an elastic return means located between a fixed point on the mould (10) and at least one of the support (24) of said cutting tool (5) and said intermediate member (25), so as to restore the elastic return means to an initial position.

5